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A REVIEW OF THE SPECIES OF THE GENUS *ESOX*.

BY SETH E. MEEK AND ROBERT NEWLAND.

In the present paper is given the synonymy of the species of the genus *Esox*, with an analytical key by which the species can be determined. The specimens which we have studied belong to the Indiana University.

We acknowledge our indebtedness to Professor Jordan, for the use of his library and for other aids.

Genus *ESOX*.

Esox Artedi, Genera 14, 1738 (includes the modern genera *Esox*, *Belone* and *Lepidosteus*).

Esox, Linnæus, Systema Naturæ, 1758, 314 (*lucius*, etc.).

Lucius,¹ Rafinesque Idice d'Ittiol. Sicil, 1810 (*lucius*).

Picorellus, Rafinesque, Ichthiol. Ohioensis, 1820, 70 (*vittatus*) *salmonæus* (subgenus).

Mascalongus, Jordan, Klippart's Second Rept. Ohio Fish Comm., 1878, 92 (*nobilior-masquinongy*) (subgenus).

Analysis of Species of Esox.

- a. Cheeks and opercles entirely scaly.
- b. Branchiostegals normally 12 (11 to 13); scales in the lateral line 105 to 108; D. 11 or 12; A. 11 or 12; middle of eye nearer tip of lower jaw than posterior margin of opercle.
- c. Head short, $3\frac{3}{4}$ in length of body; snout $2\frac{1}{2}$ in length of head; eye $2\frac{2}{3}$ in length of snout. Color dark green; sides with about twenty distinct blackish curved bars; fins plain. *Americanus*. 1.
- cc. Head longer, $3\frac{1}{4}$ in length of body; snout $2\frac{1}{5}$ in length of head; eye $2\frac{1}{2}$ in length of snout. Color greenish, sides with many narrow curved darker streaks, usually distinct and more or less reticulated; fins mostly plain. *Vermiculatus*. 2.

¹ The name *Esox* is in this paper restricted to *Esox belone* L., the type of the genus *Belone* Cuvier, while the name *Lucius* is reserved for the pikes. The name *Esox* has been universally associated with the Pikes rather than with the Gar-fishes, but perhaps in strict technicality, the name *Lucius* should be used for the former and that of *Esox* for the latter. It is perhaps not unfair, however, to assume that Linnæus would have considered the Pike, rather than the Gar-fish, as typical of his genus *Esox*.

bb. Branchiostegals 14 to 16; D. 14; A. 13; scales in lateral line about 125; middle of eye midway between tip of lower jaw and posterior margin of opercle; head about $3\frac{1}{3}$ in length of body; snout $2\frac{1}{3}$ in head; eye $3\frac{1}{2}$ in snout. Color greenish, marked with numerous narrow dark lines and streaks which are mostly horizontal, and are more or less reticulated; fins plain. *Reticulatus.* 3.

aa. Cheeks scaly; lower half of opercle bare; branchiostegals 14 to 16; D. 16 or 17; A. 13 or 14; scales in lateral line 123; head $3\frac{1}{3}$ in length of body; snout $2\frac{2}{5}$ in length of head; eye 3 in length of snout; middle of eye midway between tip of lower jaw and posterior margin of opercle. Color grayish with many whitish spots, the young barred; dorsal, anal, and caudal fins spotted with black; a white horizontal bar bounding the naked portion of opercle. *Lucius.* 4.

aaa. Cheeks as well as opercles bare on lower half; branchiostegals 17 to 19; D. 17; A. 15; scales in the lateral line about 150; middle of eye midway between tip of lower jaw and posterior margin of opercle; head $3\frac{2}{3}$ in length of body; snout $2\frac{1}{3}$ in head; eye more than four times in length of snout. Color dark gray, sides with round blackish spots; fins spotted with black. *Masquinongy.* 5.

1. *Esox americanus*.

Esox americanus Schoepf, "Naturforscher, tom. xx, 1784, 26" (Long Island).

Esox lucius β *americanus* Gmelin, Systema Naturæ, 1788, 1390 (based on Schoepf).

Esox americanus Lacépède, Hist. Nat. Poiss., v, 1803, 299; Cuvier and Valenciennes, Hist. Nat. Poiss., xviii, 1846, 329 (Saratoga Lake), Jordan, Annals N. Y. Acad. Nat. Hist., vol. i, No. 4, 1877, 104 (Delaware River; Long Island); Jordan, Bull. U. S. Geol. Sur. Ter., iv, 1878, 432; Bean, Proc. U. S. Nat. Mus., 1879, 285 (McBean creek, Georgia); Goode and Bean, Bull. Essex Inst., vol. ix, 1879, 22 (Newham Lake, Mass.); Bean, Bull. U. S. Fish Comm., 1880, 104 (Piermont, N. Y.; Trenton, N. J.; Long Island); Jordan, Man. Vert. Ed. iii, 1880, 267; Goode, Bull. U. S. Nat. Mus., 21, 1880, 32; Jordan and Gilbert, Syn. Fish, N. A., 1882, 352; Jordan, Cat. Fish. N. A. 50, 1885.

Picorellus americanus Jordan and Copeland, Bull. Buffalo Soc. Nat. Sci., 1876, 143 (Check List).

Esox niger Le Sueur, Jour. Acad. Nat. Sci. Phila., 1817, 415 (South Carolina).

- Esox scomberius* Mitchill, Amer. Monthly Mag., 1818, 322 (Murderer's Creek, N. Y.); De Kay, N. Y. Fauna, Fish, 1842, 225 (copied).
Esox fuscatus De Kay, N. Y. Fauna, Fish, 1842, 224, pl. 34, fig. 110 (Long Island).
Esox ornatus Girard, "Proc. Bost. Soc. Nat. Hist., 1854, 41" (Massachusetts); Storer, Hist. Fish, Mass., 1867, 313 (Boston market).
Esox ravenelii Holbrook, Ichthyol. S. C., 1855, 201 (South Carolina); Cope, Proc. Acad. Nat. Sci. Phila., 1865, 79 (Catawba River); Cope, Proc. Amer. Phil. Soc., 1870, 457 (Catawba River); Günther, Cat. Fish, Brit. Mus., vi, 1866, 230 (copied); Jordan, Annals N. Y. Lyceum Nat. Hist., vol. xi, 1877, 368 (Coosa R., Georgia); Jordan & Brayton, Bull. U. S. Nat. Mus., xii, 1878, 16 (Catawba River); Goode, Proc. U. S. Nat. Mus., 1879, 117.
Picorellus ravenelii Jordan & Copeland, Bull. Buffalo Soc. Nat. Sci., 1875, 143 (Check list).

Habitat.—Coastwise streams from the Charles River, Mass., to the Savannah River, Georgia.

The specimen examined by us is from the market.

The synonymy of the species offers little room for question, although some of the earlier descriptions are very scanty.

2. *Esox vermiculatus*.

- Esox vermiculatus* (Le Sueur MSS.) Cuvier & Valenciennes, Hist. Nat. Poiss., xviii, 1846, 333 (Wabash Valley); Jordan & Gilbert, Proc. U. S. Nat. Mus., 1884, 110; Forbes, Ill. State Fish Comm., 1884, 71 (Illinois); Gilbert, Proc. U. S. Nat. Mus., 1884, 209 (East Fork of White River, Indiana); Gilbert, Proc. U. S. Nat. Mus., 1884, 208 (Switz City Swamp, Greene Co., Indiana); Jordan, Cat. Fish. N. A., 50, 1885.
Esox lineatus (Le Sueur MSS.) Cuvier & Valenciennes, Hist. Nat. Poiss., 1846, 335 (Wabash Valley, young).
Esox umbrosus Kittland, "Cleveland Annals of Sciences, 1854, 79" (near Cleveland, Ohio); Cope, Proc. Acad. Nat. Sci. Phila., 1865, 79; Cope, Trans. Amer. Phil. Soc., 1866, 409 (Grosse Isle, Michigan); Hay, Bull. U. S. Nat. Mus., 1882, 67, 74 (Memphis; Jackson; Vaughans; Granada).
? *Esox crassus* Agassiz, Amer. Jour. Sci. & Arts, 1854, 308 (Tennessee River, at Huntsville, Alabama); Cope, Proc. Acad. Nat. Sci. Phila., 1865, 79 (copied); Jordan & Copeland, Bull. Buffalo Soc. Nat. Sci., 1876, 143 (Check list).
Esox cypho Cope, Proc. Acad. Nat. Sci. Phila., 1865, 78 (Waterford, Oakland Co., Michigan); Günther, Cat. Fish. Brit. Mus., vi, 1866, 230 (copied); Jordan Annals N. Y. Acad. Sci., vol. i, No. 4, 1877, 368 (Fox River, Illinois); Nelson, Bull. Ill. Mus. Nat. Hist., i, 1877, 43 (Fox River at Geneva); Jordan, Bull. U. S. Geol. Sur. Terr., iv, 1878, 432; Jordan, Man. Vert. Ed., iii, 1880, 267.

Picorellus cypho Jordan & Copeland, Bull. Buffalo Soc. Nat. Sci., 1875, 143 (Check List).

? *Esox niger* Günther, Cat. Fish. Brit. Mus., vi, 1866, 229 (New Orleans), not of Le Sueur.

Esox porosus Cope, Trans. Amer. Phil. Soc., 1866, 408 (Lake Michigan).

Esox salmoneus Jordan, Bull. Buffalo, Soc. Nat. Hist., 1876, 96.

Esox salmoneus Jordan, Annals N. Y. Acad. Sci., vol. i, No. 4, 1877, 104 (White River; Ohio River; Illinois River; Wabash River; Maumee River; Lake Erie); Jordan, Bull. U. S. Nat. Mus., 1877, 42; Jordan Annals N. Y. Lyceum, vol. xi, 1877, 376 (White River, Indiana); Jordan, Proc. Acad. Nat. Sci. Phila., 1877, 44 (Lakes of Laporte County, Indiana; St. Joseph's River, Indiana; Maumee River, Indiana; Tippecanoe River, Indiana); Nelson, Bull. Ill. Mus. Nat. Hist., i, 1877, 43 (Illinois); Jordan, Bull. Ill. Mus. Nat. Hist., ii, 1878, 53; (Illinois River at Pekin; Fox River, Union County, Ill.); Jordan Syn. Fish. N. A., 1882, 352; Jordan Zoölogy of Ohio, vol. iv, 1882, 914 (not of Mitchill; probably not of Rafinesque).

Picorellus salmoneus Jordan, Man. Vert. Ed., i, 1876; Jordan & Copeland, Bull. Buffalo Soc. Nat. Sci., 1876, 143 (Check List).

Esox ravenelii Jordan, Bull. Ill. Mus. Nat. Hist., 1876, 53 (Union County, Illinois) not of Holbrook).

Habitat.—Mississippi Valley and Great Lake region, most abundant in the central States. Not found east of the Allegheny Mountains, nor in the Texan region. Frequenting sluggish waters and bayous.

The specimens examined by us are from Falls of Ohio; Ohio River, Southern Indiana; Bean Blossom Creek, Monroe Co., Indiana; Pipe Creek, Madison County, Indiana; Mecca, Parke County, Indiana; Kankakee River at Riverside, Indiana, and Hicksville, Defiance County, Ohio.

This species has the general coloration of *E. reticulatus*, with its other characters, very close to those of *E. americanus*. From the latter species it differs but slightly, but the greater length of the snout, small as it is, seems to be very constant.

The name *Esox salmoneus*, frequently applied to this species, cannot be retained, as it was earlier given by Mitchill to *Synodus flæteus*. It is also probable that Rafinesque's original *salmoneus* is a mythical species, not identifiable with anything. In his copy of the original drawing (in his MSS. note books) the insertion of the dorsal is said to be represented as midway between the tip of the snout and the base of the caudal.

3. *Esox reticulatus*.

Esox lucius Mitchill, Trans. Hist. & Phil. Soc. N. Y., 1815, 440 (Long Island).

Esox reticulatus Le Sueur, Jour. Acad. Nat. Sci. Phila., 1818, 414, No. 2 (Philadelphia); Storer, Rept. Fish. Mass., 1839, 97 (Maine; Massachusetts); De Kay, N. Y. Fauna Fish., 1842, 223 (New York); Ayres, Bost. Jour. Nat. Hist., iv, 1842, 269 (Brookhaven, Long Island; Hockanum River, Conn.).

Esox reticulatus Cuvier & Valenciennes, Hist. Nat. Poiss., xviii, 1846, 327 (Philadelphia; Charleston, S. C.); Storer, Syn. Fish. N. A., 1846, 437; Thompson, "Hist. of Vermont, 1846, 138" (Vermont); Griffiths Cuvier, Regne Animal, 1854, 390; Cope, Proc. Acad. Nat. Sci. Phila., 1865, 79; Cope, Trans. Amer. Phil. Soc. Phila., 1866, 410; Günther, Cat. Fishes Brit. Mus., vi, 1866, 229 (Boston; New York); Storer, Hist. Fish. Mass., 1867 (Maine; Massachusetts); Jordan, Ohio State Fish Comm., 1876, 186.

Esox reticulatus Jordan, Annals N. Y. Acad. Sci., vol. i, No. 4, 1877, 104 (Westfield River; Delaware River; Ocmulgee River; Etowah River; Potomac River); Jordan, Bull. U. S. Geol. Sur. Terr., iv, 1878, 432; Jordan & Brayton, Bull. U. S. Nat. Mus., xii, 1878, 40 (Etowah River); Jordan & Brayton, Bull. U. S. Nat. Mus., xii, 1878, 16; Goode, Proc. U. S. Nat. Mus., 1879, 117; Goode & Bean, Bull. Essex Institute, vol. ix, 1879, 22 (Massachusetts); Goode, Bull. U. S. Nat. Mus., xxi, 1880, 32 (East Wareham, Massachusetts); Bean, Proc. U. S. Nat. Mus., 1880, 104 (Norfolk, Va.; South Hadley Falls, Mass.); Jordan, Man. Vert., Ed. 3, 1880, 267; Hay, Bull. U. S. Nat. Mus., 1882, 67, 74 (Big Black River, Mississippi; Pearl River, Mississippi); Jordan & Gilbert, Syn. Fish. N. A., 1882, 353; Jordan, Cat. Fish. N. A., 50, 1885.

Picorellus reticulatus Jordan & Copeland, Bull. Buffalo Soc. Nat. Hist., 1876, 143 (Check list).

? *Esox phaleratus* (Say) Le Sueur, Jour. Sci. Phila., 1818, 416 (near St. Augustine, Fla.); De Kay, N. Y. Fauna Fish., 1842, 226 (copied); Cuvier & Valenciennes, Hist. Nat. Poiss., xviii, 1846, 333 (copied).

? *Esox phaleratus* Goode, Proc. U. S. Nat. Mus., 1879, 117.

Esox tridecem-lineatus Mitchill, ? "Mirror, 1825, 361" (Oneida Lake).

Esox tridecem-radiatus DeKay, N. Y. Fauna Fish., 1842, 225 (copied).

Esox affinis Holbrook, "Ichth. South Car., 1855, 198" (South Carolina); Cope, Proc. Acad. Nat. Sci. Phila., 1865, 79 (Neuse River); Cope, Proc. Amer. Phil. Soc., Phila., 1870, 457.

Picorellus affinis Jordan & Copeland, Bull. Buffalo. Soc. Nat. Sci., 1876, 143 (Check list); Jordan, Man. Vert., 1876, Ed. i, 255.

Esox reticulatus var. *affinis* Jordan Annals, N. Y. Lyceum Nat. Hist., vol. xi, 1877, 369 (Etowah River, Georgia).

Habitat.—Maine to Mississippi, chiefly or only in streams and lakes east of the mountains.

The specimens examined by us are from the Potomac and Delaware Rivers.

4. *Esox lucius*.

*Esox lucius** Linnæus, Systema Naturæ, Ed. x, 1758, 314 (European specimens).

American References.

? *Esox lucius* Richardson, "Fauna Bor. Amer. Fishes, iii, 1836, 124" (Northern regions); De Kay, N. Y. Fauna, Fish., 1842, 226 (copied).

Esox lucius Cope, Proc. Acad. Nat. Sci. Phila., 1865, 79; Cope, Trans. Amer. Phil. Soc. Phila., 1866, 408 (Great Lakes; Lake Whittlesey, Minnesota); Günther, Cat. Fish. Brit. Mus., vi, 1866, 227 (Albany River; Lake Whittlesey, Minnesota; Arctic, N. A.); Jordan & Copeland, Bull. Buffalo Soc. Nat. Sci., 1876, 143 (Check List); Jordan, Ohio State Fish. Comm., 1876, 186, fig. 16, pl. 11; Jordan, Bull. U. S., Geol. Sur. Terr., iv, 1876, 797 (Turtle Mountain; St. Mary's River, Rocky Mountains); Jordan, Proc. Acad. Nat. Sci. Phila., 1877, 44 (St. Joseph's River, Indiana); Jordan Annals, N. Y. Acad. Sci., vol. i, No. 4, 1877, 104, (Lake Ontario; Lake Erie; Lake Michigan; Fox River, Illinois; Mississippi River); Jordan, Bull. U. S. Nat. Mus., x, 1877, 55; Jordan, Bull. U. S. Geol. Sur. Terr., 1878, 432.

Esox lucius Jordan, Bull. Ill. Mus. Nat. Hist., ii, 1878, 53 (Rock River, Ill.); Jordan, Man. Vert. Ed. 3, 1880, 266; Bean, Proc. U. S. Nat. Mus., 1880, 104 (Sandusky, Ohio; South Hadley Falls, Massachusetts); Goode, Bull. U. S. Nat. Mus., 21, 1880, 32 (Sandusky, Ohio); Bean, Proc. U. S. Nat. Mus., 1881, 255, 268, 271 (Alaska; Youkon River); Jordan, Zoology of Ohio, iv, 1882, 915; Jordan & Gilbert, Syn. Fish. N. A., 1882, 353; Forbes, Ill. State Fish Comm., 1884, 71 (Illinois); Jordan, Cat. Fish. N. A., 51, 1885.

?? *Esox vittatus* Rafinesque, American Monthly Mag., vol. iii, 1818, 447; Rafinesque, Ichth. Oh., 1820, 70 (Mythical).

Esox Estor Le Sueur, Jour. Acad. Nat. Sci. Phila., 1818, 413 (Lake Erie); DeKay, N. Y. Fauna Fish. 1842, 222; Cuvier & Valenciennes, Hist. Nat. Poiss., xviii, 1846, 324, pl. 542 (Lake Erie); Günther, Cat. Fish. Brit. Mus., 1866, 228 (copied).

Esox lucius var. *estor* Jordan, Man. Vert., 1876, 255; (Nelson, Bull. Ill. Mus. Nat. Hist., i, 1876, 43 (Northern Illinois); Jordan & Copeland, Bull. Buffalo Soc. Nat. Sci., 1876, 43 (Check List).

Esox reticulatus Kirtland, "Zoology of Ohio, 1820, 194;" Kirtland, "Bost. Jour. Nat. Hist., 1843, 33, pl. 10, fig. 2" (Lake Erie); (not of Le Sueur).

?? *Esox salmoneus* Rafinesque, Ichthiol. Ohiensis, 1820, 70 (Mythical).

* The European synonymy of this species is very extensive, and we have not attempted to collect it.

Esox depandus (Le Sueur MSS.) Cuvier & Valenciennes, Hist. Nat. Poiss., xviii, 1846, 336 (Wabash River at New Harmony, Indiana); Cope, Proc. Acad. Nat. Sci. Phila., 1865, 79; Cope, Trans. Amer. Phil. Soc. Phila., 1866, 408 (copied); Günther, Cat. Fish. Brit. Mus., 1866, 229 (copied); Jordan, Proc. U. S. Nat. Mus., 1879, 225 (Identification of Le Sueur's type).

? *Esox lugubrosus* (Le Sueur MSS.) Cuvier & Valenciennes, Hist. Nat. Poiss., xviii, 1846, 338 (Crab Orchard, Ky.; no description).

Esox lucioides "Agassiz & Girard," Herbert Frank Forester's Fish and Fishing, 1849 (Lake Superior).

Esox boreus Agassiz, "Lake Superior, 1850, 317" (Lake Superior; same as *E. lucioides*); Cope, Proc. Acad. Nat. Sci. Phila., 1865, 79; Nelson, Bull. Ill. Mus. Nat. Hist., i, 1877, 43 (Northern Illinois).

Habitat.—Streams and lakes of Europe; Northern Asia, Alaska, and Northeastern parts of North America; South to New York and Ohio River, and west to the Rocky Mountains.

The specimens examined by us are from Venice, Lake Erie, and Lake Michigan.

We can see no difference whatever between American and European examples of this species, when specimens of similar size and condition are compared. The names *Esox estor*, *deprandus*, *lucioides* and *boreus* are therefore strictly synonymous with *E. lucius*.

5. *Esox masquinongy*.

Esox masquinongy Mitchell, "Mirror, 1824, 297" (but the description is said not to be there); Kirtland, Zoölogy of Ohio, 1838, 194 (Lake Erie).

Esox estor Richardson, "Fauna Bor. Amer., iii, 1836, 127" (Lake Huron); Kirtland, Bost. Jour. Nat. Sci., 1842, 339; Agassiz, "Amer. Jour. Sci. & Arts, xvi, 1853, 308" (not *Esox estor*, Le Sueur).

Esox nobilior Thompson, "Proc. Bost. Soc. Nat. Hist., iii, 1850, 163, 173, 305" (Lake Champlain); Cope, Proc. Acad. Nat. Sci. Phila., 1865, 79; Cope, Trans. Amer. Phil. Soc. Phila., 1866, 410 (Cone-aught Lake, Pa.; Alleghany River); Jordan & Copeland, Bull. Buffalo Soc. Nat. Sci., 1876, 143 (Check list); Jordan, Annals N. Y. Acad. Sci., vol. i, No. 4, 1877, 104 (Lake Michigan; Lake Huron; Lake Erie); Jordan, Bull. U. S. Nat. Mus., 1877, 54 (Ecorse, Michigan; Lake Huron); Nelson, Bull. Ill. Mus. Nat. Hist., i, 1877, 43 (Lake Michigan); Jordan, Man. Vert., Ed. ii, 1878, 266; Jordan, Bull. Ill. Mus. Nat. Hist., 1878, 53 (Lake Michigan); Goode, Bull. U. S. Nat. Mus., xiv, 1879, 55; Goode, Bull. U. S. Nat. Mus., xxi, 1880, 32 (Sandusky, Ohio; Jordan, Man. Vert., Ed. iii, 1883, 266; Bean, Bull. U. S. Fish Comm., 1880, 104 (Sandusky, Ohio); Bean, Proc. U. S. Nat. Mus. 1880, 104 (Sandusky, Ohio).

Esox nobilior Jordan, Zoölogy of Ohio, vol. iv, 1882, 917; Jordan & Gilbert, Syn. Fish. N. A., 1882, 353; Forbes, Ill. State Fish Comm., 1884, 71 (Lake Michigan); Jordan, Cat. Fish. N. A., 51, 1885.

? *Esox ohioensis* Kirtland, "Cleveland Annals of Science, 1854."

Habitat.—Great Lakes, occasionally in the Ohio and Upper Mississippi Rivers.

One specimen examined by us is from the Ohio River at New Albany, Indiana.

We here adopt the name *Esox masquinongy* of Mitchill for this species instead of the more familiar and preferable *Esox nobilior* of apparently later date.

Professor Jordan has been unable to find the description of Mitchill in the files of the Mirror, where it is said by De Kay to occur. A portion of the description of Mitchill is quoted by De Kay, and this part applies to the Muskalunge much better than to the Pikes. Moreover, reference to Mitchill's name is made by Kirtland at a date prior to the publication of the work of De Kay.

It is therefore highly probable that a description of *Esox masquinongy* has been somewhere printed by Mitchill, and if so, that this is the earliest account of the Muskalunge.

The descriptions of *Esox ohioensis* is said to refer to this species, but we have not been able to examine the original paper of Dr. Kirtland.

LIST OF NOMINAL SPECIES WITH IDENTIFICATIONS.

The following is a list of nominal species referred to in the foregoing paper, arranged in chronological order with our identification of each. Tenable specific names are printed in italics.

<i>Nominal Species.</i>	<i>Date.</i>	<i>Identification.</i>
<i>Esox lucius</i> Linnæus,	1758,	<i>Esox lucius.</i>
<i>Esox americanus</i> Gmelin,	1788,	<i>Esox americanus.</i>
<i>Esox reticulatus</i> Le Sueur,	1817,	<i>Esox reticulatus.</i>
<i>Esox niger</i> Le Sueur,	1817,	<i>Esox americanus.</i>
<i>Esox estor</i> Le Sueur,	1818,	<i>Esox lucius.</i>
<i>Esox vittatus</i> Rafinesque.	1818,	(mythical).
<i>Esox phaleratus</i> Say,	1818,	<i>Esox reticulatus</i> ?
<i>Esox scomberius</i> Mitchill,	1818,	<i>Esox americanus.</i>
<i>Esox salmoneus</i> Rafinesque,	1820,	(mythical).
<i>Esox masquinongy</i> Mitchill,	1824,	<i>Esox masquinongy.</i>
<i>Esox tredecem-lineatus</i> Mitchill,	1825,	<i>Esox reticulatus.</i>

<i>Nominal Species.</i>	<i>Date.</i>	<i>Identification.</i>
<i>Esox fasciatus</i> De Kay,	1842,	<i>Esox americanus.</i>
<i>Esox tredecem-radiatus</i> De Kay,	1842,	<i>Esox reticulatus.</i>
<i>Esox vermiculatus</i> Le Sueur.	1846,	<i>Esox vermiculatus.</i>
<i>Esox lineatus</i> Le Sueur,	1846,	<i>Esox vermiculatus.</i>
<i>Esox deprandus</i> Le Sueur,	1846,	<i>Esox lucius.</i>
<i>Esox lugubrosus</i> Le Sueur,	1846,	<i>Esox lucius ?</i>
<i>Esox lucioides</i> Agassiz & Girard,	1849,	<i>Esox lucius.</i>
<i>Esox boreus</i> Agassiz,	1850,	<i>Esox lucius.</i>
<i>Esox nobilior</i> Thompson,	1850,	<i>Esox masquinongy.</i>
<i>Esox crassus</i> , Agassiz,	1854,	<i>Esox vermiculatus ?</i>
<i>Esox umbrosus</i> , Kirtland,	1854,	<i>Esox vermiculatus.</i>
<i>Esox ohioensis</i> , Kirtland,	1854,	<i>Esox masquinongy ?</i>
<i>Esox ornatus</i> , Girard,	1854,	<i>Esox americanus.</i>
<i>Esox affinis</i> Holbrook,	1855,	<i>Esox reticulatus.</i>
<i>Esox ravenelii</i> Holbrook,	1855,	<i>Esox americanus.</i>
<i>Esox cypho</i> Cope,	1865,	<i>Esox vermiculatus.</i>
<i>Esox porosus</i> Cope,	1866,	<i>Esox vermiculatus.</i>